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; MOLECULE TYPE: protein US-08-425-336-2
 799.
Sequence 2, Appli
Sequence 259, Appli
Sequence 259, Appli
Sequence 253, Appli
Sequence 251, Appli
                                                                                               27, 2005, 17:01:29 ; Search time 43 Seconds (without alignments) 548.584 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             number of results predicted by chance to have a an or equal to the score of the result being printed, y analysis of the total score distribution.
                                                                                                                                                            US-10-074-596-1
1623
1 MKGNMKVYWIKIAVATWFCC......KTSLAAELJIQNYESLVGFD 316
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/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
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Compugen Ltd.
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US-08-621-803-247
US-08-839-765-2
US-09-136-389-2
US-09-217-352-247
US-09-610-838-2
US-09-610-838-2
US-09-611-485-2
US-09-611-485-2
US-09-611-803-259
US-09-217-352-259
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US-09-136-389-108
US-09-610-838-108
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          GenCore version right (c) 1993 - 2005
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Maximum Match 1008
Listing first 45 summaries
                                                                       protein search, using sw model
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Maximum DB 6
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28 1282 79.0 251 4 US-09-711-485-108 Sequence 108, App 29 1279 78.8 251 1 US-08-425-336-103 Sequence 103, App 30 1279 78.8 251 1 US-08-425-336-105 Sequence 104, App 31 1279 78.8 251 1 US-08-425-336-105 Sequence 105, App 32 1279 78.8 251 1 US-08-425-336-109 Sequence 106, App 34 1279 78.8 251 1 US-08-488-113B-103 Sequence 109, App 35 1279 78.8 251 1 US-08-488-113B-103 Sequence 109, App 36 1279 78.8 251 1 US-08-488-113B-105 Sequence 106, App 37 1279 78.8 251 1 US-08-488-113B-105 Sequence 106, App 37 1279 78.8 251 1 US-08-488-113B-109 Sequence 106, App 37 1279 78.8 251 1 US-08-477-484B-103 Sequence 109, App 40 1279 78.8 251 1 US-08-477-484B-103 Sequence 106, App 41 1279 78.8 251 1 US-08-477-484B-105 Sequence 106, App 42 1279 78.8 251 1 US-08-477-484B-105 Sequence 106, App 42 1279 78.8 251 1 US-08-477-484B-109 Sequence 106, App 42 1279 78.8 251 1 US-08-477-484B-109 Sequence 106, App 42 1279 78.8 251 1 US-08-477-484B-109 Sequence 109, App 44 1279 78.8 251 2 US-08-646-360-103 Sequence 109, App 45 1279 78.8 251 2 US-08-646-360-103 Sequence 104, App 45 1279 78.8 251 2 US-08-646-360-103 Sequence 104, App 45 1279 78.8 251 2 US-08-646-360-103 Sequence 104, App 45 1279 78.8 251 2 US-08-646-360-103 Sequence 104, App 45 1279 78.8 251 2 US-08-646-360-103 Sequence 104, App 45 1279 78.8 251 2 US-08-646-360-103 Sequence 104, App 45 1279 78.8 251 2 US-08-646-360-103 Sequence 104, App 45 1279 78.8 251 2 US-08-646-360-103 Sequence 104, App 45 1279 78.8 251 2 US-08-646-360-103 Sequence 104, App 45 1279 78.8 251 2 US-08-646-360-103 Sequence 104, App 45 1279 78.8 251 2 US-08-646-360-103 Sequence 104, App 45 1279 78.8 251 2 US-08-646-360-103 Sequence 104, App 45 1279 78.8 251 2 US-08-646-360-103 Sequence 104, App 45 1279 78.8 251 2 US-08-646-360-103 Sequence 104, App 45 1279 78.8 251 2 US-08-646-360-103 Sequence 104, App 45 1279 78.8 251 2 US-08-646-360-103 Sequence 104, App 45 1279 78.8 251 2 US-08-646-360-103 Sequence 104, App 45 1279 78.8 251 2 US-08-646-360-103 Sequence 104, App 45 1279 78.8 251 2 US-08-646-360-103 Sequence 104, App
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# ALIGNMENTS

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Grant 1. No. 5621083

Grant Carry Carroll, Stephen F. Application F. Stelland No. 6021082

APPLICANT: Studnika, Gary Mamonocoxins Comprising Ribsome-Inactivating TITLE OF INVENTION: Proteins

NUMBER OF SEQUENCES: 140

GRANT CARRESPONDENCE ADDRESS:

ADDRESSEE: Marchall, O'Toole, Gerstein, Murray & Borun STREET: 6300 Sears Tower, 233 South Wacker Drive COMPRITY: USA

GRANT CARRESPONDENCE ADDRESS:

ADDRESSEE: Rioppy disk

COMPUTER: Rebable FORM:

MEDIUM TYPE: Ploppy disk

COMPUTER: Rebable FORM:

MEDIUM TYPE: Ploppy disk

COMPUTER: Barbable FORM:

MEDIUM TYPE: Ploppy disk

COMPUTER: Barbable FORM:

MEDIUM TYPE: Ploppy disk

COMPUTER: Barbable FORM:

MEDIUM TYPE: Job NATA:

APPLICATION NUMBER: 08/064,691

FILING DATE: 12-MAY-1992

APPLICATION NUMBER: US 07/787,567

FILING DATE: 13-10N-1992

APPLICATION NUMBER: B. 15-599

RECERBICE MOYOUTH ON NUMBER: B. 15,999

REFERENCE/DOCKET NUMBER: 13194

TELEPHONE: 312/414-6300

TELEPHONE: 1312/414-6300

TELEPHONE: SEQUENCE CHARACTER ISTICS:

LENGTH: 25-386

TOPPLOGY: INFORMATICS:

MORECULE TYPE: protein
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us-10-074-596-1.rai

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Best Local
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US-08-488-113B-2

US-08-488-113B-2

Sequence 2, Application US/08488113B

Patent No. 5744580

Patent No. 5744580

PAPLICANT: Gertzoll, Stephen F.

APPLICANT: Lilinois

COMPUTER: Lilinois

COMPU
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FILING DATE: 19-JUN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/787,567
FILING DATE: 04-NOV-1991
ATTORNEY/AGENT INFORMATION:
NAME: MCNicholas, Janet M.
REGISTRATION NUMBER: 32,918
REFERENCE/DOCKET NUMBER: 11022US07/200-70.P3.C2A
TELECOMMUNICATION INFORMATION:
   79.3%; Score 1287; DB 1; I
100.0%; Pred. No. 2.9e-122;
ive 0; Mismatches 0;
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ALLKFVDKDPK 251
Query Match
Best Local Similarity 100.
Matches 251; Conservative
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APPLICANT: Better, Marc D.
APPLICANT: Carroll, Stephen F.
APPLICANT: Studnika, Geny M.
APPLICANT: Studnika, Geny M.
TITLE OF INVENTION: Immunotoxins Comprising Ribosome-Inactivating
TITLE OF INVENTION: Proteins
NUMBER OF SEQUENCES: 169
CORRESPONDENCE ADDRESS:
ADDRESSEE: McAndrews, Held & Malloy, Ltd.
STREET: 500 West Madison Street, 34th floor
CITY: Chicago
STREET: 1llinois
COUNTRY: USA
ZIP: 60661
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: Batentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
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Best Local Similarity 100.0%; Pred. No. 2.9e-122;
Matches 251; Conservative 0; Mismatches 0;
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CLASSIFICATION: 530
PRIOR APPLICATION: 530
APPLICATION DATA:
APPLICATION NUMBER: US 08/425,336
FILING DATE: 18-APR-1995
PRIOR APPLICATION DATA:
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FILING DATE: 12-MAY-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/988,430
FILING DATE: 09-DEC-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 2, Application US/08477484B Patent No. 5756699 GENERAL INFORMATION:
TELEPHONE: 312/707-8882
TELEK: 650 388-1248
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 251 amino acids
TYPE: amino acid
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TOPOLOGY: linear
MOLECULE TYPE: protein
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US-08-488-113B-2
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US-08-477-484B-2
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Matches 251
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US-08-646-360-2

i Sequence 2, Application US/08646360

j Patent No. 5837491

deneral Information:
   APPLICANT: Better, Marc D.
   APPLICANT: Better, Marc D.
   APPLICANT: Studnika, Gary M.
   TITLE OF INVENTION: Immunotoxins Comprising Ribosome-Inactivating TITLE OF INVENTION: Proteins
   NUMBER OF SEQUENCES: 173
   CORRESPONDENCE ADDRESS:
   ADDRESSEE: McAndrews, Held & Malloy, Ltd.
   STREET: 500 West Madison Street, 34th floor
   CITY: Chicago STREET: 111inois
   COUNTY: USA
   STREET: 111inois
   COMPUTER READABLE FORM:
   MEDIUM TYPE: Floppy disk
   COMPUTER: PREADABLE FORM:
   MEDIUM TYPE: PatentIn Release #1.0, Version #1.25
   CURRENT OF PATENTION DATA:
   APPLICATION NUMBER: US/08/646,360
   FILING DATE: 13-MAY-1996
   CLASSIFICATION: 530
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APPLICATION NUMBEA.
FILING DATE: 19-JUN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/787,567
FILING DATE: 04-NOV-1991
ATTORNEY/AGENT INFORMATION:
NAME: MCNicholas, Janet M.
REFERENCE/DOCKET NUMBER: 11022US07/200-70.P3.C2A
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/707-9889
TELEX: 650 388-1248
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 251 amino acids
TYPE: amino acid
TYPE: amino acid
TYPE: amino acid
TYPE: amino acid
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Best Local Similarity 100.0%; Pred. No. 2.5
Matches 251; Conservative 0; Mismatches
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Sequence 247, Application US/08621803
; Sequence 247, Application US/08621803
; Patent No. 5851802
; GENERAL INFORMATION:
; APPLICANT: Better, Marc D.
; TITLE OF INVENTION: Methods for Recombinant Microbial Production of TITLE OF INVENTION: Fusion Proteins and BPI-Derived Peptides
; NUMBER OF SEQUENCES: 265
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606-6402
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100.0%; Pred. No. 2.9e-122;
tive 0; Mismatches 0;
APPLICATION NUMBER: PCT/US94/05346
FILING DATE: 12-MAY-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/064,691
FILING DATE: 12-MAY-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/988,430
FILING DATE: 09-DEC-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/901,707
FILING DATE: 19-JUN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/787,567
FILING DATE: 04-NOV-1991
ATTORNEY/AGENT INFORMATION:
REGISTRATION NUMBER: 32,918
REFERENCE/DOCKET NUMBER: 200-70.P4
TELEPHONE: 312/707-9155
TELEPHONE: 312/707-9155
TELEPHONE: 312/707-9155
TELEPHONE: 312/707-9155
TELEPHONE: 312/707-9155
TELEPHONE: 251 amino acide
TYPE: amino acide
TYPE: amino acide
TYPE: amino acide
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251; Conservative
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; MOLECULE TYPE: protein
US-08-646-360-2
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US-08-621-803-247
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APPLICANT: Better, Marc D.
APPLICANT: Better, Marc D.
APPLICANT: Carroll, Stephen F.
APPLICANT: Studnika, Gary M.
TITLE OF INVENTION: Immunotoxins Comprising Ribosome-Inactivating
TITLE OF INVENTION: Proteins
NUMBER OF SEQUENCES: 169
CORRESPONDENCE ADDRESS:
ADDRESSE: McAndrews, Held & Malloy, Ltd.
STREE: McAndrews, Held & Malloy, Ltd.
STREE: 111inois
COUNTRY: Chicago
STATE: Illinois
COUNTRY: USA
ZIP: 60661
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/839,765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GQLAEIAIDUTSVXVVGYQVRNRSYFFKDAPDAAYEGLFKNTIKTRLHFGGSYPSLEGEK
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2.9e-122;
                                                          Version #1.25
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Best Local Similarity 100.0%; Pred. No. 2.5
Matches 251; Conservative 0; Mismatches
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
DPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/621,803
FILING DATE: 22-MAR-1996
ATTORNEY/AGENT INFORMATION:
REGISTRATION NUMBER: 25,447
FLECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEPHONE: 312/474-6300
TELEPHONE: 312/474-6300
TELEPHONE: 25-3856
INFORMATION FOR SEQ ID NO: 247:
SEQUENCE CHARACTERISTICS:
LENGTH: 251 amino acids
TYPE: amino acid
TYPE: amino acid
US-08-621-803-247
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US-08-839-765-2
; Sequence 2, Application US/08839765
; Patent No. 6146631
; GENERAL INFORMATION:
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181 FQQRIRPANNTISLENKWGKLSFQIRTSGANGMFSEAVELERANGKKYYVTAVDQVKPKI
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                                                            APPLICATION DATA:
APPLICATION NUMBER: US 08/425,336
FILING DATE: 18-APR-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/064,691
FILING DATE: 12-MAY-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/988,430
FILING DATE: 09-DEC-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/901,707
FILING DATE: 19-JUN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/787,567
FILING DATE: 04-NOV-1991
ATTORNEY/AGENT INFORMATION:
NAME: MCNicholas, Janet M.
REGISTRATION NUMBER: 32,918
REFERENCE/DOCKET NUMBER: 11022US09/200-70.P3.C3
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPANS: 312/707-9155
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100.0%; Pred. No. 2.9e-122;
ive 0; Mismatches 0;
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US-09-136-389-2
; Sequence 2, Application US/09136389
; Patent No. 6146850
; GENERAL INFORMATION:
; APPLICANT: Better, Marc D.
; APPLICANT: Carroll, Stephen F.
; APPLICANT: Studnika, Gary M.
; TITLE OF INVENTION: Immunotoxins Comprising Ribos
; TITLE OF SEQUENCES: 173
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: MCANdrews, Held & Malloy, Ltd.
; STREET: 500 West Madison Street, 34th floor
; CITY: Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; LENGTH: 251 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-839-765-2
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Best Local Similarity 100.
Matches 251; Conservative
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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FILING DATE: 15-APR-
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
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47 GLDTVSFSTKGATYITYVNFLNELRVKLKPEGNSHGIPLLRKKCDDPGKCFVLVALSNDN
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                                                                                                                                      Methods for Recombinant Microbial Production of Fusion Proteins and BPI-Derived Peptides 265
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South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; DB 3; L/
2.9e-122;
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patent No. 6274344

GENERAL INFORMATION:
APPLICANT: Better, Marc D.
TITLE OF INVENTION: Methods for Recombi
TITLE OF INVENTION: Fusion Proteins and
NUMBER OF SEQUENCES: 265
CORRESPONDENCE ADDRESS:
ADDRESSE: Marshall, O'Toole, Gerstei
STREET: 6300 Sears Tower, 233 South W.
CITY: Chicago
STATE: Illinois
COUNTRY: United States of America
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Versic
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/217,352
FILING DATE: 22-MR-1996
ATTORNEY/AGENT INFORMATION:
NAME: Borun, Michael F:
REGISTRATION NUMBER: 25,447
REFERENCE/DOCKET NUMBER: 27129/33199
TELECOMMUNICATION INFORMATION:
TELEFAX: 312/474-6300
TELEFAX: 25-3856
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100.0%; Pre
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Patent No. 6376217
GENERAL INFORMATION:
APPLICANT: Better, Marc D.
APPLICANT: Carroll, Stephen F.
APPLICANT: Studnika, Gary M.
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Best Local Similarity 100.
Matches 251; Conservative
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; MOLECULE TYPE: protein
US-09-217-352-247
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                                                                                                                                                                                                EM: PC-DOS/MS-DOS
entin Release #1.0, Version #1.25
ION DATA:
                                STATE: Illinois
COUNTRY: USA
ZIP: 60661
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Vers
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/136,389
FILING DATE: 13-MAY-1996
APPLICATION NUMBER: 08/646,360
FILING DATE: 12-MAY-1996
APPLICATION NUMBER: 08/064,691
FILING DATE: 12-MAY-1993
PRIOR APPLICATION NUMBER: US 07/988,430
FILING DATE: 12-MAY-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/988,430
FILING DATE: 19-DUN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/97,567
FILING DATE: 19-UNN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/787,567
FILING DATE: 19-UNN-1992
PRIOR APPLICATION NUMBER: US 07/787,567
FILING DATE: 19-UNN-1992
APPLICATION NUMBER: US 07/787,567
FILING DATE: 19-UNN-1992
APPLICATION NUMBER: 200-70.P4
TELECOMMUNICATION INFORMATION:
REGISTRATION NUMBER: 200-70.P4
TELECOMMUNICATION INFORMATION:
REGISTRATION NUMBER: 32,918
REFERENCE/DOCKET NUMBER: 200-70.P4
TELECOMMUNICATION INFORMATION:
REGISTRATION NUMBER: 200-70.P4
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/707-9155
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US-09-217-352-247
; Sequence 247, Application US/09217352
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TELEPHONE: 312/707-880
TELEFAX: 312/707-9155
TELEX: 650 388-1248
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 251 amino acid: TYPE: TYPE
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ALLKFVDKDPK 251
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Best Local Similarity
Matches 251; Conserv
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61 GQLAEIA
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107 GQLAEIAIDVTSVYVVGYQVRNRSYFPKDAPDAAYEGLFKNTIKTRLHFGGSYPSLEGEK 166
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APPLICANT: Better, Marc D.
APPLICANT: Carroll, Stephen F.
APPLICANT: Carroll, Stephen F.
APPLICANT: Studnika, Gary M.
TITLE OF INVENTION: Immunotoxins Comprising Ribosome-Inactivating
TITLE OF INVENTION: Proteins
NUMBER OF SEQUENCES: 169
CORRESPONDENCE ADDRESS:
ADDRESSEE: McAndrews, Held & Malloy, Ltd.
STREET: 500 West Madison Street, 34th floor
CITY: Chicago
STATE: Illinois
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Pred. No. 2.9e-122;
0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ver
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/711,485
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/839,765
FILING DATE:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/064,691
FILING DATE: 12-MAY-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/988,430
FILING DATE: 09-DEC-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/988,430
FILING DATE: 19-JUN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/901,707
FILING DATE: 19-JUN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/901,707
FILING DATE: 19-JUN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/901,707
FILING DATE: 19-JUN-1992
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FILING DATE: 04-NOV-1991
ATTORNEY/AGENT INFORMATION:
NAME: McNicholas, Janet M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    79.3%; SCC.
100.0%; Pr
                                                                                                                                                                                             US-09-711-485-2; Sequence 2, Application US/09711485; Patent No. 6649742; GENERAL INFORMATION:
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MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
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REFERENCE/DOCKET NUMBER: 11(
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/707-8889
TELEFAX: 312/707-9155
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amino acid
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Best Local Similarity 100.
Matches 251; Conservative
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TELEX: 650 388-1248
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
                                           287 ALLKFVDKDPK 297
                                                                                         241 ALLKFVDKDPK 251
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; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-711-485-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GLDTVSFSTKGATYITYVNFLNELRVKLKPEGNSHGIPLLRKKCDDPGKCFVLVALSNDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NNTISLENKWGKLSFQIRTSGANGMFSEAVELERANGKKYYVTAVDQVKPKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GLDTVSFSTKGATY1TYVNFLNELRVKLKPEGNSHG1PLLRKKCDDPGKCFVLVALSNDN
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               Immunotoxins Comprising Ribosome-Inactivating
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TITLE OF INVENTION: Immunotoxins Comprising Ribosome TITLE OF INVENTION: Proteins NUMBER OF SEQUENCES: 173
CORRESPONDENCE ADDRESS: ADDRESSE: ADDRESSE: McAndrews, Held & Malloy, Ltd.
STREET: 500 West Madison Street, 34th floor CITY: Chicago COUNTRY: UGA ZIPE: Chicago COUNTRY: UGA ZIPE: Floppy disk COMPUTER: Illinois PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.25 COMPUTER: Batentin Release #1.0, Version #1.25 SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/610,838 FILING DATE: 06-JUL-2000 CLASSIPICATION NUMBER: US/09/610,838 FILING DATE: 13-MAY-1994 PRIOR APPLICATION NUMBER: BCT/US34/05348 FILING DATE: 13-MAY-1994 PRIOR APPLICATION NUMBER: US/09/64,691 FILING DATE: 13-MAY-1993 PRIOR APPLICATION DATA: BAPLICATION DATA: BAPLICATION DATA: APPLICATION NUMBER: US 07/901,707 FILING DATE: 13-MAY-1991 ATTORNEY/AGENT INFORMATION: NAME: US 07/901,707 FILING DATE: 13-MAY-1991 ATTORNEY/AGENT INFORMATION: NAME: WCSIGNORIA: JORGE NAME: 200-70.P4 TELENCOMMUNICATION NUMBER: 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; DB 3; L
2.9e-122;
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Pred. No.
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100.0%; Pro
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312/707-8889

TELEX: 312/707-9155

TELEX: 650 388-1248

INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERIAL

TYPE:
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TYPE: amino acid
TOPOLOGY: linear
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Best Local Similarity
Matches 251; Conserv
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; MOLECULE TYPE:
US-09-610-838-2
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RESULT 13
US-09-217-352-259
; Sequence 259, Application US/09217352
; Patent No. 6274344
; GENERAL INFORMATION:
; TITLE OF INVENTION: Methods for Recombinant Microbial Production of
; TITLE OF INVENTION: Pusion Proteins and BPI-Derived Peptides
; TITLE OF INVENTION: Pusion Proteins and BPI-Derived Peptides
; TITLE OF INVENTION: Pusion Proteins and BPI-Derived Peptides
; NUMBER OF SEQUENCES: 265
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 6300 Sears Tower, 233 South Wacker Drive
; CITY: Chicago
; STRATE: Illinois
; COUNTRY: United States of America
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      143 AYRETTDLGIEPLRIGIKKLDENAIDNYKPTEIASSLLVVIQMVSEAARFTFIENQIRNN
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      6300 Sears Tower, 233 South Wacker Drive
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Pred. No. 4.7e-122;
3; Mismatches 0;
               CITY: Chicago
STATE: Illinois
COUNTRY: United States of America
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/621,803
FILING DATE: 22-MAR-1996
ATTORNEY/AGENT INFORMATION:
NAME: Borun, Michael F.
REGISTRATION NUMBER: 25,447
REFERENCE/DOCKET NUMBER: 27129/33199
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEPHONE: 312/474-0448
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263 ALLKFVDKDPKSA 275
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Best Local Similarity 98.8
Matches 250; Conservative
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: Anti-HIV and Anti-tumor Peptides and Truncated Polypeptides of
: map30 and gap31
E-HUANG 4A
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DVTSVYVVGYQVRNRSYFFKDAPDAAYEGLFKNTIKTRLHFGGSYPSLEGEK 166
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US-08-621-803-259
; Sequence 259, Application US/08621803
; Patent No. 5851802
; GENERAL INFORMATION:
; APPLICANT: Better, Marc D.
; TITLE OF INVENTION: Methods for Recombinant Microbial Prc;
; TITLE OF INVENTION: Fusion Proteins and BPI-Derived Pepti;
; NUMBER OF SEQUENCES: 265
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2.9e-122;
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US-09-645-603B-2
i Sequence 2, Application US/09645603B
j Patent No. 6652861
j GENERAL INFORMATION:
i APPLICANT: LEE-HUANG, Sylvia
j TITLE OF INVENTION: map30 and gap31
j FILE REFERENCE: LEE-HUANG 4A
j CURRENT APPLICATION NUMBER: US/09/645,603B
j CURRENT APPLICATION NUMBER: US 60/150,885
j PRIOR APPLICATION NUMBER: US 60/150,885
j PRIOR FILING DATE: 1999-08-26
j NUMBER OF SEQ ID NOS: 2
j SOFTWARE: Patentin version 3.2
j SEQ ID NO 2
j LENGTH: 251
j TYPE: PRT
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:Y 100.0%; Pred. No. 2.5
:rvative 0; Mismatches
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Best Local Similarity
Matches 251; Conser
ALLKFVDK
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                                                                                                                                                                                                                                                                     Length 293;
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                                                                                                                                                                                                                                                                                                                                                                                                   GIEPLRIGIKKLDENAIDNYKPTEIASSLLVVIQMVSEA
                 Version #1.25
                                                                                                                                                                                                                                                                   79.2%; Score 1286; DB 3; y 98.8%; Pred. No. 4.7e-122; rvative 3; Mismatches 0;
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/217,352
FILING DATE:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/621,803
FILING DATE: 22-MAR-1996
ATTORNEY/AGENT INFORMATION:
REGISTRATION NUMBER: 25,447
REGISTRATION NUMBER: 27129/33199
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELERX: 25-3856
INFORMATION FOR SEQ ID NO: 259:
SEQUENCE CHARACTERISTICS:
LENGTH: 293 amino acids
TYPE: amino acid
TYPE: amino acid
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ALLKFVDKDPKTS 299
                                                                                                                                                                                                               ; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-217-352-259
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Best Local Similarity
Matches 250; Conserv
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US-09-217-352-253

squence 253, Application US/09217352
; Sequence 253, Application US/09217352
; Sequence 253, Application US/09217352
; Sequence 253, Application US/09217352
; Patent No. 627434
; CRESPONDENCE NO. 6744
; TITLE OF INVENTION: Methods for Recombinant Microbial Production of TITLE OF INVENTION: Pusion Proteins and BPI-Derived Peptides NUMBER OF SEQUENCES: 265
CORRESPONDENCE ADDRESS: ADDRESS: Marshall, O'Toole, Gerstein, Murray & Borun STREET: G100 Scars Tower, 233 South Wacker Drive CTTY: Chicago Scars Tower, 233 South Wacker Drive STATE: Illinois
STATE: Illinois
STATE: Illinois
COUNTRY: United States of America
STATE: HEW POOR COMPABLIAN
COMPUTER: LEM PC Compatible
CONTRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/217,352
FILING DATE: 22-MAR-1996
CTTY APPLICATION NUMBER: US/09/217,352
FILING DATE: APPLICATION NUMBER: 25,477
REFERENEVAL INFORMATION:
REFERENCE/DOCKET NUMBER: 25,477
FERENCE/DATE NUMBER: 27,129/33199
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Pred. No. 5.1e-122;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No. 5.16
3; Mismatches
                                                                    27129/33199
NAME: Borun, Michael F.
REGISTRATION NUMBER: 25,447
REFERENCE/DOCKET NUMBER: 27123
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 253:
SEQUENCE CHARACTERISTICS:
LENGTH: 309 amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
US-08-621-803-253
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Best Local Similarity 98.8%;
Matches 250; Conservative 3
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AYRETTDLGIEPLRIGIKKLDENAIDNYKPTEIASSLLVVIQMVSEAARFTFIENQIRNN 226
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                                                                                                                                                                                                                   EGEK 166
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0
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79.2%; Score 1286; DB 3; Length 309;
Best Local Similarity 98.8%; Pred. No. 5.1e-122;
Matches 250; Conservative 3; Mismatches 0; Indels
                                                                                                                                                                                                              27, 2005, 17:15:07
; TELEPHONE: 312/474-6300
; TELEFAX: 312/474-0448
; TELEX: 25-3856
; INFORMATION FOR SEQ ID NO: 253
; SEQUENCE CHARACTERISTICS:
; LENGTH: 309 amino acids
; TYPE: amino acid
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-217-352-253
                                                                                                                                                                                                                                                                                                                                                    ALLKFVDKDPKTS 299
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	Description	Abq71551 G. multif	3 TVD	4 Geloniu	N	Aaw29300 BPI pepti			Ψ	Aar63921 Type I RI	Aar63918 Type I RI	Aar63920 Type I RI	Aar63919 Type I RI	Aar63924 Type I RI	Aar63922 Type I RI	Aar63917 Type I RI	2 Type I	Aar74177 Type I ri	Aar37291 Plant typ	4	Aar63915 Type I RI	Aar63916 Type I RI	Aar22227 Gelonin t	Aar63913 Type I RI	Aap70325 Sequence	Aap70097 Ricin A.
SUMMARIES	D	ABG71551	AAR63903	ADG63044	ABG71552	AAW29300	AAW29303	AAW29294	AAR63923	AAR63921	AAR63918	AAR63920	AAR63919	AAR63924	AAR63922	AAR63917	AAR63912	AAR74177	AAR37291	AAR63914	AAR63915	AAR63916	AAR22227	AAR63913	AAP70325	AAP70097
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# ALIGNMENTS

	08-JAN-2003 G. multiflorum Modified protest toximuse toximuse autoimmune designer toximuse autoimmune designer toximuse autoimmune designer autoimmune geardiant; ant recombinant gelonium mult WO200269886-A12-SEP-2002;
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us-10-074-596-1.rag

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particular the invention discloses modified toxin compounds, for example gelonin toxin derived from Gelonium multiflorum, that are truncated and/or possess reduced antigenicity. Such designer toxins have therapeutic, diagnostic, and preventative benefits, particularly as immunotoxins. The method of the invention is useful for generating proteinaceous compounds with less antigenicity. The immunotoxin and gelonin toxin are useful for treating cancer, e.g. prostate, lung, brain, skin, liver, breast, lymphoid, stomach, testicular, ovarian, pancreatic, bone, bone marrow, head and neck, cervical, oesophagus, eye, gall bladder, kidney, adrenal glands, heart, colon, or blood cancer. The compositions of the invention are also useful for treating microbial pathogenesis, acquired immunodeficiency syndrome (AIDS), autoimmune diseases, hyperproliferative disorders including cancer, leukaemias, arthritis, inflammatory diseases, cardiovascular diseases, pathogenic diseases, and diabetes. The method provides less antigenic proteins, present sequence represents G. multiflorum recombinant gelonin (rGel)
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                                                                                                                                                                                                                                                                                                                                             Length 316;
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                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                           100.0%; Score 1623; DB 5;
100.0%; Pred. No. 1.5e-146;
live 0; Mismatches 0;
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Best Local Similarity 100.
Matches 316; Conservative
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gelonin toxin deri
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                                                                                                                                                                                                                                                                                                            Sequence 316 AA;
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27-JUL-1995
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             anti-HIV; cytostatic; peptide therapy; anti-tumour; antiviral; MAP30; GAP31; HIV; tumour; gelonium anti-HIV protein 31kDa.
                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                             Polynucleotide(s) encoding type I ribosome-inactivating proteins - are suitable for use as components of cytotoxic therapeutic agents.
                                                                                                                                                                                                                                                                                                                                                          Length 251;
                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                        Score 1287; DB 2; L
Pred. No. 1.6e-114;
O; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gelonium anti-HIV protein 31kDa (GAP31)
                                         Studnicka GM;
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                                                                                                                                                                                                                                                                                                                                              79.3%; Scc.
100.0%; Pre
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Best Local Similarity 100.
Matches 251; Conservative
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N-PSDB; ABS56029.
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Best Local Similarity
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                                                                                         Rosenblum MG,
                              12-FEB-2002;
            12-SEP-2002
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                                                                                                             The invention describes an isolated peptide or polypeptide having an anti-
tumour and antiviral activity. Also described is a composition
comprising the isolated peptide or polypeptide, and a carrier, excipient
or auxiliary agent. Specifically claimed are MAP30 or GAP31 peptides or
polypeptides. The peptide or polypeptide is useful for treating HIV
infection, and tumour. This is the amino acid sequence of Gelonium anti-
HIV protein 30kDa (MAP30).
                                                                                                                                                                                                                                                                                                                         120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Modified protein; reduced antigenicity; modified toxin; gelonin; designer toxin; immunotoxin; proteinaceous compound; cancer; microbial pathogenesis; acquired immunodeficiency syndrome; AIDS; autoimmune disease; hyperproliferative disorder; leukaemia; arthritis; inflammatory disease; cardiovascular disease; diabetes; pathogenic disease; cytostatic; antiarthritic; antiinflammatory; cardiant; antidiabetic; virucide; protozoacide; fungicide; antibacterial; murine; single-chain ZME-018 antibody; recombinant gelonin; rGel;
                                                                                                                                                                                                                                                                                  9
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                                                                                                                                                                                                                                                                                                                GIEPLRIGIKKLDENAIDNYKPTEIASSLLVVIQMVSEAARFTFIENQIRNN
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                                                                                                                                                                                                                                                                                                                                                                                              FQQRIRPANNTISLENKWGKLSFQIRTSGANGMFSEAVELERANGKKYYVTAVDQVKPKI
                                                         31 peptides or polypeptides having an anti-tumor and ty, useful for treating human immunodeficiency virus or.
                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                           .
0
                                                                                                                                                                                                                     Length 251;
                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                     79.3%; Score 1287; DB 8; I 100.0%; Pred. No. 1.6e-114; ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       multiflorum rGel fusion protein.
                                                                                                 Example 1; SEQ ID NO 2; 22pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABG71552 standard; protein; 507 AA
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YORK STATE
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                                                                                                                                                                                                                   Query Match 79.3
Best Local Similarity 100.
Matches 251; Conservative
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antiviral activit
infection or tumc
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Gelonium multiflo
Synthetic.
                                                                                                                                                                                                                                                                                                     GOLAEIAI
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scfvMEL/rGel; mut
NEW
                                     WPI; 2004-050519
                                                                                                                                                                                                                                                             GLDTVSF
                                                                                                                                                                                                                                                                                                                                            AYRETTD
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                                                                                                                                                                                                                                                                                 GLDTVSF
                                                                                                                                                                                                                                                                                                                      GOLAEIA
                                                                                                                                                                                                   Sequence 251 AA;
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NIN
                    Lee-Huang S;
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(UXNX)
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The present invention relates to a method of generating a modified protein with reduced antigenicity while maintaining its biological activity. The method comprises identifying a region of the protein that is antigenic in a first subject using antiserum from either the first subject or a second subject of the same species as the first subject. In particular the invention discloses modified toxin compounds, for example compound toxin derived from Gelonium multiflorum, that are truncated and/or possess reduced antigenicity. Such designer toxins have therapeutic, diagnostic, and preventative benefits, particularly as immunotoxins. The method of the invention is useful for generating commenced compounds with less antigenicity. The immunotoxin and proteinaceous compounds with less antigenicity. The immunotoxin and gelonin toxin are useful for treating cancer, e.g. prostate, lung, brain, skin, liver, breast, lymphoid, stomach, testicular, ovarian, pancreatic, bladder, kidney, adrenal glands, heart, colon, or blood cancer. The compositions of the invention are also useful for treating microbial compositions of the invention are also useful for treating microbial diseases, hyperproliferative disorders including cancer, leukaemias, crathritis, inflammatory diseases, cardiovascular diseases, pathogenic diseases, and diabetes. The method provides less antigenic proteins, peptides and polypeptides, which are more effective than prior art. The present sequence represents murine single-chain ZMB-018 antibody/G. multiflorum recombinant gelonin (rGel) (scfwMEL/rGel) fusion protein
                                                                                                                                                                                                                                                                                                                                                                                        Generating a modified protein with reduced antigenicity for treating cancer, AIDS, autoimmune diseases, comprises identifying a protein region antigenic in the first subject using antiserum from either the first or a second subject.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        316
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Pred. No. 4.5e-114;
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v 100.0%; Pred. No. ...
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Page 174-176; 176pp;
2002WO-US004195
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The vector comprises: (a) DNA encoding at least one cationic

Dactericidal/permeability increasing peptide (BPI), (b) DNA encoding a cartier protein, and (c) DNA encoding an amino acid (a) cleavage site cartier protein, and (b). The present sequence represents the protein.

It peptides have many uses including the treatment of bacterial and fungal infections. BPI peptides also bind to endotoxins and heparin, neutralising their effects. The peptides have further been shown to inhibit angiogenesis (partly due to heparin-binding activity). The fusion proteins have been found to be expressed in large amounts without significant proteolysis, and in some cases are actually secreted from the bettides in microbial hosts
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                                                                                                                                                                                                                                                                                                                             protein -
n cleaving
                                                                                     Bactericidal/permeability increasing peptide, BPI, fusion protein; bacterial infection; fungal infection; endotoxin; heparin; angiogenesis; fungicidal; recombinant DNA; vector.
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                                                                                                                                                                                                                                                                                                                              increasing greatly cells, then
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0
                                                                   BPI peptide fusion protein pING3797 vector construct protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 293;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DVTSVYVVGYQVRNRSYFFKDAPDAAYEGLFKNTIKTRLH
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                                                                                                                                                                                                                                                                                                                             Recombinant production of bactericidal/permeability by expression as a fusion protein in microbial host the BPI peptide from the carrier.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1286; DB 2;
Pred. No. 2.5e-114;
3; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                   160-161; 186pp; English.
          Z
         protein; 293
                                                                                                                                                                                                                    97WO-US005287.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 79.2%;
Best Local Similarity 98.8%;
Matches 250; Conservative
                                                                                                                                                                                                                                       96US-00621803
                                                                                                                                    Pectobacterium carotovorum.
Homo Bapiens.
Chimeric.
                                                 entry
                                               (first
          AAW29300 standard;
                                                                                                                                                                                                                                                           (XOMA ) XOMA CORP
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N-PSDB; AAT86336.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 293 AA;
                                                                                                                                                                                                                                                                                                                                                                    Example 1; Page
                                                                                                                                                                                                                    TB-MAR-1997;
                                                                                                                                                                             WO9735009-A1
                                                                                                                                                                                                                                       22-MAR-1996;
                                                                                                                                                                                                 25-SEP-1997
                                                                                                                                                                                                                                                                              ΨD.
                                                                                                                             Synthetic
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                            AAW29300
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AAW29300
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A new recombinant DNA vector construct has been developed which encodes a fusion protein and is suitable for introduction into a bacterial host.

The vector comprises: (a) DNA encoding at least one cationic

bactericidal/permeability increasing peptide (BPI), (b) DNA encoding a carrier protein, and (c) DNA encoding an amino acid (aa) cleavage site located between (a) and (b). The present sequence represents the protein.

The peptides have many uses including the treatment of bacterial and fungal infections. BPI peptides also bind to endotoxins and heparin, neutralising their effects. The peptides have further been shown to inhibit angiogenesis (partly due to heparin-binding activity). The fusion proteins have been found to be expressed in large amounts without significant proteolysis, and in some cases are actually secreted from the post ide in microbial BPI host.
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                                                  262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Recombinant production of bactericidal/permeability increasing protein - by expression as a fusion protein in microbial host cells, then cleaving the BPI peptide from the carrier.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           angiogenesis;
                             Gaps
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Pred. No. 2.7e-114;
3; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 1; Page 152-153; 186pp; English.
                                                                                                                                                                                                                                                                                                  AAW29303 standard; protein; 309 AA
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Best Local Similarity 98.8%;
Matches 250; Conservative 3
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                                                                                                                                                            275
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                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                          ALLKFVDKDPKTS
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ALLKFVDKDPKSA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pectobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (XOMA ) XOMA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22-MAR-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                     AAW29303;
                                                                                                        287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chimeric.
227
                                                      203
                                                                                                                                                            263
                                                                                                                                                                                                                                                                       AAW29303
                                                                                                                                                                                                                                            RESULT
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A new recombinant DNA vector construct has been developed which encodes a fusion protein and is suitable for introduction into a bacterial host.

The vector comprises: (a) DNA encoding at least one cationic

bactericidal/permeability increasing peptide (BPI), (b) DNA encoding a

carrier protein, and (c) DNA encoding an amino acid (aa) cleavage site

located between (a) and (b). The present sequence represents the protein

from the pING3793 vector construct which codes for a BPI fusion protein.

The peptides have many uses including the treatment of bacterial and

fungal infections. BPI peptides also bind to endotoxins and heparin,

neutralising their effects. The peptides have further been shown to

inhibit anglogenesis (partly due to heparin-binding activity). The fusion

proteins have been found to be expressed in large amounts without

significant proteolysis, and in some cases are actually secreted from the

host cells. This allows the indirect production of anti-microbial BPI
                                                                                   226
                                                                                                             202
                                                                                                                                         286
                                                                                                                                                                                                                                                                                                                                                                                                      Bactericidal/permeability increasing peptide; BPI; fusion protein; bacterial infection; fungal infection; endotoxin; heparin; angiogenesis; fungicidal; recombinant DNA; vector.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               uction of bactericidal/permeability increasing protein - a fusion protein in microbial host cells, then cleaving
GLDTVSFSTKGATY ITYVNFLNELRVKLKPEGNSHG I PLLRKKCDDPGKCFYLVALSNDN
                                                                               GIEPLRIGIKKLDENAIDNYKPTEIASSLLVVIOMVSEAARFTFIENOIRNN
                                                                                                      GIEPLRIGIKKLDENAIDNYKPTEIASSLLVVIQMVSEAARFTFIENQIRNN
                              LEGEK
                                                                                                                                                     NNTISLENKWGKLSFQIRTSGANGMFSEAVELERANGKKYYVTAVDQVKPKI
                          IDVISVYVGYQVRNRSYFFKDAPDAAYEGLFKNTIKTRLHFGGSYPS}
                                                                                                                                                                                                                                                                                                                                                                               BPI peptide fusion protein pING3793 vector construct protein.
                                         48-150; 186pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rom the carrier
                                                                                                                                                                                                                                                                                              332
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    96US-00621803
                                                                                                                                                                                                                                                                                            protein;
                                                                                                                                                                                            KDPKTS 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rotovorum
                                                                                                                                                                                                                        KDPKSA 275
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /44.
                                                                                                                                                                                                                                                               RESULT 7
AAW29294
ID AAW29294 standard;
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Pectobacterium car
Homo sapiens.
Chimeric.
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ALLKFVDK
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                           GOLAEIA
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                                                                                                            AYRETTD
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                                                                                                                                                                    GSYPSLEGEK
                                                                                                             47 GLDTVSFSTKGATYITYVNFLNELRVKLKPEGNSHGIPLLRKKCDDPGKCFVLVALSNDN
                                                                                                                              GLDTVSFSTKGATYITYVNFLNELRVKLKPEGNSHGIPLLRRKKCDDPGKCFYLVALSNDN
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                                                      Score 1286; DB 2;
Pred. No. 3e-114;
3; Mismatches C
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peptides in microbial hosts
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                            Sequence 332 AA
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Sequence 251 AA;
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 (Updated on 25-MAR-2003
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                                                                                                                                                                                                   FQQRIRPANNTISLENKWGKLSFQIRTSGANGMFSEAVELERANGKKYYVTAVDQVKPKI
                                                                                                                                                                                          FQQRIRPANNTISLENKWGKLSFQIRTSGANGMFSEAVELERANGKKYYVTAVDQVKPKI
                                                                                                DPGKCFVLVALSNDN
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                                                                                 IKGATY I TYVNFLNELRVKLKPEGNSHGI PLLRKKCDDPGKCFVLVALSNDN
                                                                Gaps
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                                                               Indels
                                              Length
                                                                                           1 GLDTVSFSTKGATYITYVNFLNELRVKLKPEGNSHGIPLI
                                             Score 1282; DB 2;
Pred. No. 4.9e-114;
graft-versus-host disease.
                                                                                                                    GQLAEIAIDVTSVYVVGYQVRNRSYFFKDAPDAAYEGI
                                                                                                                              61 GQLAEIAIDVTSVYVVGYQVRNRSYFFKDAPDAAYEG
                                                              0; Mismatches
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disease, cancer a correct PN field
                           Sequence 251 AA;
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elimination of a particular cell type is desired, such as autoimmune disease, cancer and graft-versus-host disease. (Updated on 25-MAR-2003
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Pred. No. 9.5e-114;
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can be used in the treatment of diseases where the particular cell type is desired, such as autoimmune and graft-versus-host disease. (Updated on 25-MAR-2003
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Pred. No. 9.5e-114;
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targetted, by the specific binding capacity of the second component of the agent. They can be used in the treatment of diseases where the elimination of a particular cell type is desired, such as autoimmune disease, cancer and graft-versus-host disease. (Updated on 25-MAR-2003 correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                GQLAEIAIDVTSVYVVGYQVRNRSYFFKDAPDAAYEGLFKNTIKTRLHFGGSYPSLEGEK
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                                                                                                                                                                                      Length 251
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                                                                                                                                                                                Score 1279; DB 2;
Pred. No. 9.5e-114;
0; Mismatches 1;
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                                                                                                                                                                                Query Match
Best Local Similarity 99.6%;
Matches 250; Conservative
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                                                                                                                                       Sequence 251 AA;
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selectively eliminate any cell type to which a RIP component is targetted, by the specific binding capacity of the second component of the agent. They can be used in the treatment of diseases where the elimination of a particular cell type is desired, such as autoimmune disease, cancer and graft-versus-host disease. (Updated on 25-MAR-2003 correct PN field.)
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                                                                                                                     47 GLDTVSFSTKGATYITYVNFLNELRVKLKPEGNSHGIPLLRKKCDDPGKCFVLVALSNDN
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                                                                                                   Gaps
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                                                                                 Score 1279; DB 2; Length 251; Pred. No. 9.5e-114;
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graft-versus-host disease
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ALLKFVDKDPK 251
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Best Local Similarity
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protein (RIP) gelonin, one of the nine RIPs described in AAR63903-R63911.
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include gene fusion products and immunoconjugates. CTAs may be used to selectively eliminate any cell type to which a RIP component is targetted, by the specific binding capacity of the second component of the agent. They can be used in the treatment of diseases where the elimination of a particular cell type is desired, such as autoimmune disease, cancer and graft-versus-host disease. (Updated on 25-MAR-2003 correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                121 AYRETTDLGIEPLRIGIKKLDENAIDNYKPTEIASSLLVVIQMVSEAARFTFIENQIRNN
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                                                                                                                                                                                                                                                                                Indels
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Pred. No. 9.5e-114;
0; Mismatches 1;
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nilarity 99.6%;
Conservative 0
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RIPs are key components of cytotoxic therapeutic agents (CTAs), which include gene fusion products and immunoconjugates. CTAs may be used to selectively eliminate any cell type to which a RIP component is targetted, by the specific binding capacity of the second component of the agent. They can be used in the treatment of diseases where the elimination of a particular cell type is desired, such as autoimmune disease, cancer and graft-versus-host disease. (Updated on 25-MAR-2003 correct PN field.)
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                                                                                                                                                                                                                                           DVTSVYVVGYQVRNRSYFFKDAPDAAYEGLFKNTIKTRLHFGGSYPSLEGEK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Type I ribosome-inactivating proteins; RIPs; gelonin; cytotoxic therapeutic agents; autoimmune disease; cancer; graft-versus-host disease.
                                                                                                                                Score 1278; DB 2;
Pred. No. 1.2e-113;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                82-183; 221pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein; 251
                                                                                                                                78.78;
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Best Local Similarity
Matches 250; Conserv
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protein (RIP) gelonin, one of the nine RIPs described in AAR63903-R63911 RIPs are key components of cytotoxic therapeutic agents (CTAs), which include gene fusion products and immunoconjugates. CTAs may be used to selectively eliminate any cell type to which a RIP component is targetted, by the specific binding capacity of the second component of the agent. They can be used in the treatment of diseases where the elimination of a particular cell type is desired, such as autoimmune disease, cancer and graft-versus-host disease. (Updated on 25-MAR-2003 to correct PN field.)
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Pred. No. 1.2e-113;
0; Mismatches 1;
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le : 168 secs
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Best Local Similarity 99.6%;
Matches 250; Conservative
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103, App 104, App 105, App 106, App 100, App 100, App 100, App 100, App 100, App 101, App 101, App 101, App 101, App 111, App

Sequence 10
Sequence 11

Appli Appli Appli Appli Appli Appli

Sequence 4 Sequence 4

Sequence Sequence 3 Sequence

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Sequence 1, Application US/10074596;
Publication No. US20030176331A1
GENERAL INFORMATION:
APPLICANT: ROSENBLUM, MICHAEL G.
APPLICANT: CHEUNG, LAWRENCE
TITLE OF INVENTION: MAKING THEEOF
TITLE OF INVENTION: MAKING THEEOF
TITLE OF INVENTION WUMBER: US/10/074,596
CURRENT APPLICATION NUMBER: US/10/074,596
CURRENT FILING DATE: 2002-02-12
PRIOR APPLICATION NUMBER: 60/268,402
PRIOR FILING DATE: 2001-02-12
NUMBER OF SEQ ID NOS: 11
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ITYVNFLNELRVKLKPEGNSHGIPLLRKKCDDPGKCFVLVALSNDNGQLAEIAIDVTSVY
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US-10-127-890-104

US-10-127-890-105

US-10-127-890-106

US-10-127-890-109

US-10-127-890-109

US-10-717-243-103

US-10-717-243-109

US-10-717-243-109

US-10-717-243-109

US-10-717-243-100

US-10-127-890-107

US-10-127-890-107

US-10-717-243-100

US-10-717-243-100

US-10-717-243-101

US-10-717-243-101

US-10-717-243-101

US-10-717-243-111

US-10-717-243-11

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Best Local Similarity 100.
Matches 316; Conservative
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Sequence 247, App
Sequence 2, Appli
Sequence 2, Appli
Sequence 11, Appl
Sequence 259, App
Sequence 253, App
Sequence 251, App
Sequence 108, App
Sequence 108, App
Sequence 108, App
Sequence 108, App
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777.985 Million cell updates/sec
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US-10-127-890-2

7 US-10-717-243-2

4 US-10-074-596-11

US-09-765-527-259

US-09-765-527-253

US-09-765-527-251

US-10-127-890-108

7 US-10-117-890-108

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Maximum Match 100%
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/127,890
FILING DATE: 23-Apr-2002
CLASSIFICATION AUMBER: US/08/646,360
FILING DATE: 13-MAY-1996
APPLICATION NUMBER: US 08/064,691
FILING DATE: 12-MAY-1993
APPLICATION NUMBER: US 07/988,430
FILING DATE: 12-MAY-1993
APPLICATION NUMBER: US 07/988,430
FILING DATE: 19-JUN-1992
APPLICATION NUMBER: US 07/988,430
FILING DATE: 19-JUN-1992
APPLICATION NUMBER: US 07/981,707
FILING DATE: 04-NOV-1991
ATTORNEY AGENT INFORMATION:
NAME: MCANICHOLAS, Janet M.
REFERENCE/DOCKET NUMBER: 200-70.P4
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/707-8889
TELEBHONE: 312/707-8889
TELEBHONE: 312/707-8155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
ADDRESSEE: McAndrews, Held & Malloy, Ltd.
STREET: 500 West Madison Street, 34th floor
CITY: Chicago
STATE: Illinois
COUNTRY: USA
ZIP: 60661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           79.3%; Score 1287; DB 14; ilarity 100.0%; Pred. No. 1.5e-112; Conservative 0; Mismatches 0;
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; SEQUENCE DESCRIPTION: SEQ ID NO:
US-10-127-890-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS
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                                                                                                                                                                                                                           RESULT 2
US-09-765-527-247
i Sequence 247, Application US/09765527
j Patent No. US20020006638A1
j GENERAL INFORMATION:
i APPLICANT: Better, Marc D.
TITLE OF INVENTION: Fusion Proteins and BPI-Derived Peptides
- 255
                    VVGYQVRNRSYFFKDAPDAAYEGLFKNTIKTRLHFGGSYPSLEGEKAYRETTDLGIEPLR
                                                                                            VVGYQVRNRSYFFKDAPDAAYEGLFKNTIKTRLHFGGSYPSLEGEKAYRETTDLGIEPLR
                                                                                                                                                                                             ENKWGKLSFQIRTSGANGMFSEAVELERANGKKYYVTAVDQVKPKIALLKFVDKDPKTSL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: Chicago
STATE: 111inois
COUNTRY: United States of America
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: Datentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US/09/765,527
FILING DATE: 18-Jan-2001
PRIOR APPLICATION NUMBER: 08/621,803
FILING DATE: <UNKNOWN>
ATTORNEY/AGANT INFORMATION:
AND DATE: APPLICATION:
APPLICATION NUMBER: APPLICATION:
APPLICATION A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 265
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray &
STREET: 6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
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Best Local Similarity 100.
Matches 251; Conservative
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                                                                                     CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/10/717,243
FILING DATE: 18-NOV-2003
CLASSIFICATION NUMBER: US/08/839,765
FILING DATE: 18-NOV-2003
CLASSIFICATION NUMBER: US/08/839,765
FILING DATE: 15-APR-1997
APPLICATION NUMBER: US 08/425,336
FILING DATE: 18-APR-1995
APPLICATION NUMBER: US 08/64,691
FILING DATE: 12-MAY-1995
APPLICATION NUMBER: US 07/901,707
FILING DATE: 09-DEC-1992
APPLICATION NUMBER: US 07/901,707
FILING DATE: 19-UN-1992
APPLICATION NUMBER: US 07/901,707
FILING DATE: 04-NOV-1991
ATTORNEY/AGENT INFORMATION:
NAME: MCNICALION NUMBER: 32,918
REFERENCE/DOCKET NUMBER: 11022US09/200-70.P3.C3
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/707-9155
TELEPAX: 312/707-9155
                                                                                                                                                                                                                                                                                                                                                                                           TYPE: Floppy disk
TR: IBM PC compatible
NG SYSTEM: PC-DOS/MS-DOS
UE: PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                         EE: McAndrews, Held & Malloy, Ltd.
500 West Madison Street, 34th floor
hicago
Illinois
: USA
GLDTVSFSTKGATYITYVNFLNELRVKI
                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 169
CORRESPONDENCE ADDRESS:
ADDRESSE: MCANDENS
STREET: 500 West Mad
CITY: Chicago
STATE: 111inois
COUNTRY: USA
ZIP: 60661
COMPUTER READABLE FORM:
                                                                                                                                                       ALLKFVDKDPK 297
                                                                                                                                                                           KDPK 251
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TELEFAX: 31
TELEX: 650
INFORMATION FOR SEQ I
SEQUENCE CHARACT
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; Sequence 11, Application US/10074596
; Publication No. US20030176331A1
; GENERAL INFORMATION:
; APPLICANT: ROSENBLUM, MICHAEL G.
; APPLICANT: CHEUNG, LAWRENCE
; TITLE OF INVENTION: MAKING THEEOF
; TITLE OF INVENTION: MAKING THEEOF
; FILE REFERENCE: CLFR:007US
; FILE REFERENCE: CLFR:007US
; FILE REFERENCE: CLOO7US
; FILE REFERENCE: 2002-02-12
; PRIOR APPLICATION NUMBER: 60/268,402
; PRIOR FILING DATE: 2001-02-12
; PRIOR FILING DATE: 2001-02-12
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: Patentin Ver. 2.1
; LENGTH: 507
                                                                                                                                                                                                                                                                                                                                                                                    107 GOLAEIAIDVTSVYVVGYQVRNRSYFFKDAPDAAYEGLFKNTIKTRLHFGGSYPSLEGEK
                                                                                                                                                                                                                                                                                                                                61 GQLAEIAIDVTSVYVVGYQVRNRSYFFKDAPDAAYEGLFKNTIKTRLHFGGSYPSLEGEK
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                                                                                                                                                                                   Gaps
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                                                                                                                                        79.3%; Score 1287; DB 17;
100.0%; Pred. No. 1.5e-112;
ative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 79.3%; Score 1287; DB 14; Best Local Similarity 100.0%; Pred. No. 4.1e-112; Matches 251; Conservative 0; Mismatches 0;
;
TYPE: amino acid
;
TOPOLOGY: linear
;
MOLECULE TYPE: protein
;
SEQUENCE DESCRIPTION: SEQ ID NO:
US-10-717-243-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                    Query Match
Best Local Similarity 100.
Matches 251; Conservative
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241 ALLKFVDKOPK 251
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263 ALLKFVDKDPKSA 275
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437 FQQRIRPANNTISLENKWGKLSFQIRTSGANGMFSEAVELERANGKKYYVTAVDQVKPKI 496
                                                                                                                                           Sequence 259, Application US/09765527
Patent No. US20020006638A1
GENERAL INFORMATION:
APPLICANT: Better, Marc D.
TITLE OF INVENTION: Methods for Recombinant Microbial Production of Fusion Proteins and BPI-Derived Peptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AYRETTDLGIEPLRIGIKKLDENAIDNYKPTEIASSLLVVIQMVSEAARFTFIENQIRNN
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South Wacker Drive
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                                                                                                                                                                                                                                                       CORESPONDENCE ADDRESS:
CORRESPONDENCE ADDRESS:
CORRESPONDENCE ADDRESS:
STREET: 6300 Sears Tower, 233 South Wacker Drive
CITY: Chicago
STATE: 111inois
COUNTRY: United States of America
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   79.2%; Score 1286; DB 9; 98.8%; Pred. No. 2.4e-112; ative 3; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/765,527
FILING DATE: 18-Jan-2001
PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/621,803
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Borun, Michael F.
REGISTRATION NUMBER: 25,447
REFERENCE/DOCKET NUMBER: 27129/33199
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 293 amino acids
TYPE: amino acids
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 259:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 259:
SEQUENCE CHARACTERISTICS:
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Best Local Similarity 98.8
Matches 250; Conservative
                                                   287 ALLKFVDKDPK 297
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US-09-765-527-259
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                                                                                                                                         APPLICANT: Better, Marc D.
TITLE OF INVENTION: Methods for Recombinant Microbial Production of Fusion Proteins and BPI-Derived Peptides
NUMBER OF SEQUENCES: 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     143 AYRETTDLGIEPLRIGIKKLDENAIDNYKPTEIASSLLVVIQMVSEAARFTFIENQIRNN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  47 GLDTVSFSTKGATYITYVNFLNELRVKLKPEGNSHGIPLLRKKCDDPGKCFVLVALSNDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GOLAEIAIDVTSVYVVGYQVRNRSYFFKDAPDAAYEGLFKNTIKTRLHFGGSYPSLEGEK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         167 AYRETTDLGIBPLRIGIKKLDENAIDNYKPTBIASSLLVVIQMVSEAARFTFIENQIRNN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           203 FQQRIRPANNTISLENKWGKLSFQIRTSGANGMFSEAVELERANGKKYYVTAVDQVKPKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GLDTVSFSTKGATYITYVNFLNELRVKLKPEGNSHGIPLLRKKCDDPGKCFVLVALSNDN
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                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 265
CORRESPONDENCES: 265
CORRESPONDENCES: Marshall, O'Toole, Gerstein, Murray & Borun STREET: 6300 Sears Tower, 233 South Wacker Drive CITY: Chicago STREET: 6300 Sears Tower, 233 South Wacker Drive CITY: Chicago STREE: 111inois COUNTRY: United States of America COMPUTER: READABLE FORM:
MEDIUM TYPE: Floppy disk COMPUTER: READABLE FORM:
MEDIUM TYPE: Floppy disk COMPUTER: READABLE FORM:
MEDIUM TYPE: Ploppy disk COMPUTER: Barbit In Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: 08/621,803
FILING DATE: 18-2an-2001
PRIOR APPLICATION NUMBER: 08/621,803
FILING DATE: CHANCHAION:
MAME: Borun, Michael F.
REGISTRATION NUMBER: 25,447
REFERENCE/MONTAL INFORMATION:
TELEPRA: 312/474-6300
TELEPRA: 312/474-6300
TELEPRA: 312/474-6300
TELEPRA: 312/474-0448
TELER: 25-3856
INFORMATION FOR SEQ ID NO: 253:
SEQUENCE CHARACTERISTICS:
LENGTH: 309 amino acide
TYPE: amino acide
TOPPING TIPE: Amino acide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 253:
RESULT 7
US-09-765-527-253
; Sequence 253, Application US/09765527
; Patent No. US20020006638A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ALLKFVDKDPKTS 299
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ADDRESSBE: McAndrews, Held & Malloy, Ltd. STREET: 500 West Madison Street, 34th floor
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Pred. No. 4.5e-112;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:

APPLICATION DATA:

APPLICATION NUMBER: US/08/646,360
FILING DATE: 13-MAY-1996
APPLICATION NUMBER: PCT/US94/05348
FILING DATE: 12-MAY-1994
APPLICATION NUMBER: US 08/064,691
FILING DATE: 12-MAY-1993
APPLICATION NUMBER: US 07/988,430
FILING DATE: 09-DEC-1992
APPLICATION NUMBER: US 07/901,707
FILING DATE: 19-JUN-1992
APPLICATION NUMBER: US 07/97,567
FILING DATE: 04-NOV-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: McNicholas, Janet M.
REGISTRATION NUMBER: 32,918
REFERENCE/DOCKET NUMBER: 200-70.P4
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/707-8889
                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/10/127,890
FILING DATE: 23-Apr-2002
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: linear

MOLECULE TYPE: protein

SEQUENCE DESCRIPTION: SEQ ID NO: 108:
US-10-127-890-108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION: NAME: MCNicholas, Jane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               79.0%;
ilarity 99.6%;
Conservative
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INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                      ZIP: 60661
COMPUTER READABLE FORM:
                                                                                  NUMBER OF SEQUENCES: 1'
CORRESPONDENCE ADDRESS
                                                                                                                                                 CITY: Chicago
STATE: Illinois
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      287 ALLKFVDKDPK 297
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   APPLICANT:
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Best Local S
Matches 250
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  202
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                                                               etter, Marc D.
ENTION: Methods for Recombinant Microbial Production of
Fusion Proteins and BPI-Derived Peptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LGIEPLRIGIKKLDENAIDNYKPTEIASSLLVVIQMVSEAARFTFIENQIRNN
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                                                                                                            NUMBER OF SEQUENCES: 265
CORRESPONDENCE ADDRESS:
ADDRESSE: Marshall, O'Toole, Gerstein, Murray & Borun STREET: 6300 Sears Tower, 233 South Wacker Drive CITY: Chicago STATE: Illinois COUNTRY: United States of America ZIP: 60606-6402
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 332
                                                                                                                                                                                                                                                MPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
RRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/765,527
FILING DATE: 18-Jan-2001
IOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            79.2%; Score 1286; DB 9; 98.8%; Pred. No. 2.8e-112; ive 3; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 08/621,803
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Borun, Michael F.
REGISTRATION NUMBER: 25,447
REFERENCE/DOCKET NUMBER: 27129/33199
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Y: linear
E: protein
CRIPTION: SEQ ID NO: 251:
             Sequence 251, Application US/09765527
Patent No. US20020006638A1
GENERAL INFORMATION:
APPLICANT: Better, Marc D.
TITLE OF INVENTION: Methods fo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 9
US-10-127-890-108
; Sequence 108, Application US/10127890
; Publication No. US20030166196A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 251:
SEQUENCE CHARACTERISTICS:
LENGTH: 332 amino acids
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Best Local Similarity
Matches 250; Conser
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MOLECULE TYPE:

SEQUENCE DESCR
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APPLICA
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US-09-765-527-251
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
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Studnika, Gary M.
TITLE OF INVENTION: Immunotoxins Comprising Ribosome-Inactivating
Proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GLDTVSFSTKGATYITYVNFLNELRVKLKPEGNSHGIPLLRRKKCDDPGKCFVLVALSNDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AYRETTDLGIEPLRIGIKKLDENAIDNYKPTEIASSLLVVIQMVSEAARFTFIENQIRNN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FOORIRPANNTISLENKWGKLSFOIRTSGANGMFSEAVELERANGKKYYVTAVDQVKPKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GOLABIAIDVTSVYVVGYQVRNRSYFFKDAPDAAYEGLFKNTIKTRLHFGGSYPSLEGEK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FQQRIRPANNTISLENKWGKLSFQIRTSGANGMFSEAVELERANGKKYYVTAVDQVKPKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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167
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  47 GLDTVSFSTKGATYITYVNFLNELRVKLKPEGNSHGIPLLRKKCDDPGKCFVLVALSNDN 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Comprising Ribosome-Inactivating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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                                                                                                                                                                                                                                                                                              COUNTRANCE STREET TORM:

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

COMPUTER: IBM PC compatible

COMPUTER: Patent Release #1.0, Version #1.25

TR/10/717,243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CNICHOLDS, JOHNET M.
ATION NUMBER: 32,918
CE/DOCKET NUMBER: 11022US09/200-70.P3.C3
ATION INFORMATION:
NE: 312/707-8889
                                                                                                                                                                                                             NUMBER OF SEQUENCES: 169
CORRESPONDENCE ADDRESS:
ADDRESSEE: McAndrews, Held & Malloy, Ltd.
STREET: 500 West Madison Street, 34th floor
CITY: Chicago
STATE: Illinois
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1282; DB 17;
Pred. No. 4.5e-112;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/839,765
FILING DATE: 15-APR-1997
APPLICATION NUMBER: US 08/425,336
FILING DATE: 18-APR-1995
APPLICATION NUMBER: US 08/064,691
FILING DATE: 12-MAY-1993
APPLICATION NUMBER: US 07/988,430
FILING DATE: 09-DEC-1992
APPLICATION NUMBER: US 07/901,707
FILING DATE: 19-JUN-1992
APPLICATION NUMBER: US 07/787,567
FILING DATE: 04-NOV-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . MOLECULE TYPE: protein ; SEQUENCE DESCRIPTION: SEQ ID NO: 108: US-10-717-243-108
                                                                                      Sequence 108, Application US/10717243; Sequence 108, Application No. US20050054835A1; GENERAL INFORMATION:

APPLICANT: Better, Marc D.

Carroll, Stephen F.

Studnika, Gary M.

TITLE OF INVENTION: Immunotoxins Co
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INFORMATION FOR SEQ ID NO: 101
SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATION DATA
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Best Local Similarity 99.6
Matches 250; Conservative
TELEPHON:
TELEFAX:
TELEX: 6
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APPLICAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: MC
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US-10-717-243-108
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US-10-127-890-103
Sequence 103, Application US/10127890
Sequence 103, Application US/10127890
Publication No. US20030166196A1
GENERAL INFORMATION:
Carroll, Stephen F.
Studnika, Gary M.
TITLE OF INVENTION: Immunotoxins Comprising Ribosome-Inactivating Proteins
                                                                       121 AYRETTDLGIEPLRIGIKKLDENAIDNYKPTEIASSLLVVIQMVSEAARFTFIENQIRNN
                                                FOOR I RPANNTISLENKWGKLSFOIRTSGANGMFSEAVELERANGKKYYVTAVDQVKPKI
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: 1BM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/127,890
FILING DATE: 23-Apr-2002
CLASSIFICATION: <UNknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: McAndrews, Held & Malloy, Ltd.
STREET: 500 West Madison Street, 34th floor
CITY: Chicago
STATE: Illinois
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19.8%; Score 1279; DB 14; ilarity 99.6%; Pred. No. 8.7e-112; Conservative 0; Mismatches 1;
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APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US/08/646,360
FILING DATE: 13-MAY-1994
APPLICATION NUMBER: PCT/US94/05348
FILING DATE: 12-MAY-1993
APPLICATION NUMBER: US 07/988,430
FILING DATE: 09-DEC-1992
APPLICATION NUMBER: US 07/901,707
FILING DATE: 19-JUN-1992
APPLICATION NUMBER: US 07/901,707
FILING DATE: 19-JUN-1991
ATTORNEY/AGENT INFORMATION:
NAME: MCNICHOLAB: Janet M.
REGISTRATION NUMBER: 32,918
REFERENCE/DOCKET NUMBER: 200-70.P4
TELECOMMUNICATION INFORMATION:
TELEFAX: 312/707-8889
TELEFAX: 312/707-9155
TELEFAX: 312/707-9155
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MOLECULE TYPE: protein

SEQUENCE DESCRIPTION: SEQ ID NO: 103:
US-10-127-890-103
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SEQUENCE CHARACTERISTICS:
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241 ALLKFVDKDPK 251
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Best Local Similarity
Matches 250; Conserv
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GOLARIAIDVTSVYVVGYQVRNRSYFFKDAPDAAYEGLFKNTIKTRLHFGGSYPSLEGEK
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/127,890
FILING DATE: 23-Apr-2002
CLASSIFICATION: <UNknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: McAndrews, Held & Malloy, Ltd.
STREET: 500 West Madison Street, 34th floor
CITY: Chicago
STATE: Illinois
COUNTRY: USA
                                                                                                                                                                               Score 1279; DB 14;
Pred. No. 8.7e-112;
0; Mismatches 1;
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APPLICATION NUMBER: US/08/646,360
FILING DATE: 13-MAY-1996
APPLICATION NUMBER: PCT/US94/05348
FILING DATE: 12-MAY-1994
APPLICATION NUMBER: US 08/064,691
FILING DATE: 12-MAY-1993
APPLICATION NUMBER: US 07/988,430
FILING DATE: 09-DEC-1992
APPLICATION NUMBER: US 07/901,707
FILING DATE: 19-JUN-1992
APPLICATION NUMBER: US 07/901,707
FILING DATE: 19-JUN-1992
APPLICATION NUMBER: US 07/787,567
FILING DATE: 04-NOV-1991
TYPE: amino acid

TOPOLOGY: linear

MOLECULE TYPE: protein

SEQUENCE DESCRIPTION: SEQ ID NO: 104.
US-10-127-890-104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 105, Application US/10127890
; Publication No. US20030166196A1
; GENERAL INFORMATION:
; APPLICANT: Better, Marc D.
; Carroll, Stephen F.
; Studnika, Gary M.
; TITLE OF INVENTION: Immunotoxins Co.
                                                                                                                                                                                     78.8%;
                                                                                                                                                                               Query Match
Best Local Similarity 99.6
Matches 250; Conservative
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US-10-127-890-105
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LUNI:

CATOOLI, Stephen F.

Studnika, Gary M.

TITLE OF INVENTION: Immunotoxins Comprising Ribosome-Inactivating

Proteins

NUMBER OF SEQUENCES: 173

CORRESPONDENCE ADDRESS:

ADDRESSEE: MCANdrews, Held & Malloy, Ltd.

STREET: 500 Weet Madison Street, 34th f'

CITY: Chicago

STATE: Illinois

COUNTRY: USA

ZIP: 60661

COMPTER READAPT

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                                                                       GQLABIAIDVTSVYVVGYQVRNRSYFFKDAPDAAYEGLFKNTIKTRLHFGGSYPSLEGEK
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
SNT APPLICATION DATA:
APPLICATION NUMBER: US/10/127,890
FILING DATE: 23-Apr-2002
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 23-Apr-2002
CLASSIFICATION CUNKNOWN>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/646,360
FILING DATE: 13-MAY-1996
APPLICATION NUMBER: US/08/64,691
FILING DATE: 12-MAY-1994
APPLICATION NUMBER: US 08/064,691
FILING DATE: 12-MAY-1993
APPLICATION NUMBER: US 07/988,430
FILING DATE: 09-DEC-1992
APPLICATION NUMBER: US 07/901,707
FILING DATE: 09-DEC-1992
APPLICATION NUMBER: US 07/97,567
FILING DATE: 04-NOV-1991
ATTORNEY/AGENT INFORMATION:
NAME: MCNICHOLAS, Janet M.
REGISTRATION NUMBER: 32,918
REFERENCE/DOCKET NUMBER: 200-70.P4
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
US-10-127-890-104
; Sequence 104, Application US/10127890
; Publication No. US20030166196A1
; GENERAL INFORMATION:
; APPLICANT: Better, Marc D.
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INFORMATION FOR SEQ ID NO: 10
SEQUENCE CHARACTERISTICS
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ALLKFVDCDPK 251
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TELEPHON
TELEFAX:
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US-10-127-890-106

US-10-127-890-106

Sequence 106, Application US/10127890

Publication No. US20030166196A1

GENERAL INFORMATION:

Carroll, Stephen F.

Studnika, Gary M.

TITLE OF INVENTION: Immunotoxins Comprising Ribosome-Inactivating Proteins

Proteins
                                                                                                                                                                                                                                                                                                                                                                                                  GOLAEIAIDVISVYVVGYQVRNRSYFFKDAPDAAYEGLFKNTIKTRLHFGGSYPSLEGEK
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                                                                                                                                                                                                                                                   Length 251;
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ZIP: 60661

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC-DOS/MS-DOS

OPERATING SYSTEM: PC-DOS/MS-DOS

TWARE: PatentIn Release #1.0, Version #1.25

TS/10/127,890
                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 173
CORRESPONDENCE ADDRESS:
ADDRESSEE: McAndrews, Held & Malloy, Ltd.
STREET: 500 West Madison Street, 34th floor
CITY: Chicago
STATE: Illinois
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
SOFTWARE: Patentin Relect
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/127,890
FILING DATE: 23-Apr-2002
CLASSIFICATION: <UNKNOWN>
PRIOR APPLICATION NUMBER: US/08/646,360
FILING DATE: 13-MAY-1996
APPLICATION NUMBER: PCT/US94/05348
PILING DATE: 12-MAY-1994
*"PILING DATE: 12-MAY-1994
                                                                                                                                                                                                                                               Query Match 78.8%; Score 1279; DB 14; Best Local Similarity 99.6%; Pred. No. 8.7e-112; Matches 250; Conservative 0; Mismatches 1;
                                                                                                                                                                                                   NO: 105
REGISTRATION NUMBER: 32,918
REFERENCE/DOCKET NUMBER: 200-7
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/707-8889
TELEFAX: 312/707-9155
TELEX: 650 388-1248
INFORMATION FOR SEQ ID NO: 105:
SEQUENCE CHARACTERISTICS:
LENGTH: 251 amino acids
TYPE: amino acid
TYPE: amino acid
                                                                                                                                                     rOPOLOGY: linear
;
MOLECULE TYPE: protein
;
SEQUENCE DESCRIPTION: SEQ ID
US-10-127-890-105
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241 ALLCFVDKDPK 251
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COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 173
CORRESPONDENCE ADDRESS:
ADDRESSEE: McAndrews, Held & Malloy, Ltd.
STREET: 500 West Madison Street, 34th floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 78.8%; Score 1279; DB 14; Best Local Similarity 99.6%; Pred. No. 8.7e-112; Matches 250; Conservative 0; Mismatches 1;
FILING DATE: 12-MAY-1993
APPLICATION NUMBER: US 07/988,430
FILING DATE: 09-DEC-1992
APPLICATION NUMBER: US 07/901,707
FILING DATE: 19-JUN-1992
APPLICATION NUMBER: US 07/787,567
FILING DATE: 04-NOV-1991
ATTORNEY/AGENT INFORMATION:
NAME: MCNICATION NUMBER: 32,918
REFERENCE/DOCKET NUMBER: 200-70.P4
TELEPHONE: 312/707-8889
TELEFAX: 312/707-9155
TELEFAX: 312/707-9155
TELEFAX: 350 388-1248
INFORMATION FOR SEQ ID NO: 106:
SEQUENCE CHARACTERISTICS:
LENGTH: 251 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 106:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 15
US-10-127-890-109
; Sequence 109, Application US/10127890
; Publication No. US20030166196A1
; GENERAL INFORMATION:
; APPLICANT: Better, Marc D.
; APPLICANT: Sethen F.
; Studnika, Gary M.
: TITLE OF INVENTION: Immunotoxins Con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         287 ALLKFVDKDPK 297
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FRICA PAPELICATION NUMBER: US/08/646,360
FILING DATE: 13-MAY-1996
APPLICATION NUMBER: PCT/US94/05348
FILING DATE: 12-MAY-1994
APPLICATION NUMBER: US 08/064,691
FILING DATE: 12-MAY-1993
APPLICATION NUMBER: US 07/988,430
FILING DATE: 09-DEC-1992
APPLICATION NUMBER: US 07/901,707
FILING DATE: 19-JUN-1992
APPLICATION NUMBER: US 07/787,567
FILING DATE: 04-NOV-1991
ATTORNEY/AGENT INFORMATION:
NAME: MCNICHOLAS, Janet M.
REGISTRATION NUMBER: 32,918
REFERENCE/DOCKET NUMBER: 200-70.P4
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/707-8889
TELEPHONE: 312/707-8889
TELEFAX: 650 388-1248
INFORMATION FOR SEQ ID NO: 109:
SEQUENCE CHARACTERISTICS:
LENGTH: 251 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 109:
Search completed: July 27, 2005, 17:27:06 Job time : 159 secs
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                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 78.8%; Score 1279; DB 14; Best Local Similarity 99.6%; Pred. No. 8.7e-112; Matches 250; Conservative 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/10/127,890
FILING DATE: 23-Apr-2002
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
                                                                                                                                             181
                                                                                                                                                                                                                      121
                                                                       241
                                                                                                                                                                                 227
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                                                                                                                                                                                                                                                                                        GQLAEIAIDVTSVYVVGYQVRNRSYFFKDAPDAAYEGLFKNTIKTRLHFGGSYPSLEGEK 166
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                                                                                                                                                                 FQQRIRPANNTISLENKWGKLSFQIRTSGANGMFSEAVELERANGKKYYVTAVDQVKPKI 286
                                                                       ALLKEVDKDPK
                                                                      251
                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 251;
                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                        0
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5.1.6 Compugen Ltd version - 2005 GenCore (c) 1993 Copyright

sw model using OM protein - protein search, ; Search time 41 Seconds
 (without alignments)
741.573 Million cell updates/sec 27, 2005, 17:23:23 July Run on:

Title: Perfect score:

US-10-074-596-1 1623 1 MKGNMKVYWIKIAVATWFCC......KTSLAAELIIQNYESLVGFD Sequence:

316

**BLOSUM62** Scoring table:

10.0 , Gapext Gapop

0.5

segs, 96216763 residues 283416 Searched:

283416 Total number of hits satisfying chosen parameters:

2000000000 Minimum DB seq length: Maximum DB seq length:

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database

PIR 79:\*
1: pir1:\*
2: pir2:\*
3: pir3:\*
4: pir4:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	rana N-glycosidase	ricin D_precursor	agglutinin precurs	rRNA N-glycosidase	rRNA N-glycosidase	rRNA N-qlycosidase	abrin-b precursor	rRNA N-glycosidase	rRNA N-qlycosidase	abrin (clone 7.2)	abrin-a precursor	rRNA N-glycosidase	karasurin - Mongol		antiviral protein	rRNA N-glycosidase	abrin-c precursor	karasurin-B - Tric	abrin-d precursor	mistletoe lectin I	rRNA N-glycosidase	agglutinin I precu	beta-luffin - smoo	luffin-b - smooth	rRNA N-qlycosidase	betavulgin - beet	ribosome-inactivat	rRNA N-glycosidase	rRNA N-glycosidase
SUMMARIES	ID	JT0753	RLCSD	RLCSAG	JC4840	S25560	JC4235	S32430	S17757	S28421	C39761	TZLSA	RLTZT	JU0393	JC5606	JE0401	S22494	S16022	JC5032	S32431	PD0018	RLPUGG	S62627	823519	JN0108	A39817	JC4811	S46239	RLQHG2	S05205
	DB	7	٦	~	~	7	7	~	~	~	7	Ч	ч	~	~	~	~	~	7	7	~	-	~	7	7	~	7	7	-	0
	Length	316	576	564	245	286	286	527	313	294	251	528	289	247	289	261	277	295	247	528	254	286	570	278	250	278	272	310	292	283
de	Query	100.0	23.8	22.6	21.5	21.4	21.1	ö	ö	。	20.3	ö	о О	19.4	φ.	φ.	φ.	19.1	٠	•	ω.	17.9	•	7.	ė.	•	13.5		•	12.1
	Score	1623	386	366	348.5	347	342	337.5	334.5	333.5	329	324	322	315	315	311.5	311.5	310.5	310	302	301.5	291	287.5	287	270	223	219.5	216	200	196
	Result No.	ret	01	m	4	Ŋ	9	7	α	თ	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	<b>5</b> 6	27	28	29

rRNA N-glycosidase	N conserved hypoth	hypothetical prote	abrin (clone 3.7)	tritin - wheat	rRNA N-glycosidase	hypothetical prote	hypothetical prote								
S17574	\$17519	S28542	T12573	S28541	S28539	S29931	A58923	S17932	B69511	H70219	B39761	S33631	RLBH	S73786	T15650
7	7	~	~	~	7	7	N	~	~	~	~	~	ч	N	7
40	293	253	289	253	253	253	253	236	1948	414	106	275	280	1140	1154
12.0	12.0	11.2	11.2	10.9	10.9	10.9	10.6	9.5	9.0	7.5	7.5	7.1	7.0	6.7	9.9
195	194.5	182	182	177	177	177	172	150	145.5	122	121	114.5	113.5	109	107
30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

## ALIGNMENTS

RESULT 1
JUD033
rRNA N-glycogidase (BC 3.2.2.22) precursor - Geloniuum multiflorum
N;Alternate names: gelonin; type I ribosome-inactivating protein
C;Species: Gelonium multiflorum
C;Botecies: Gelonium multiflorum
C;Botecies: Gelonium multiflorum
C;Botecies: Gelonium multiflorum
C;Botecies: Gelonium multiflorum
C;Accession: JT0753; S16489
R;Nolan, P.A.; Garrison, D.A.; Better, M.
Gene 134, 223-227, 1993
A;Atle: Cloning and expression of a gene encoding gelonin, a ribosome-inactivating pro-A;Reference number: JT0753; MUID:94085781; PMID:7916721
A;Accession: JT0753
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A;Accession: JT0753
A;Reference number: Jale kNOL>
A;Reference number: S16311; MUID:9808781; PMID:275356
A;Accession: S16489
A;Reference number: S16311; MUID:89326691; PMID:2753596
A;Accession: S16489
A;Accession: S16489
A;Accession: S16489
A;Accession: JT0753
A;Residues: 47-89; K',91-92; D' < MON>
C;Function:
A;Residues: 47-89; K',91-92; D' < MON>
C;Function: Aperil sequence #status predicted < S1G>
C;Superfamily: RRNA N-glycosidase; RRNA N-glycosidase homology
C;Keywords: glycosidase; hydrolase
F;47-316/Product: ribosomal RNA N-glycosidase #status predicted <MAT>
F;53-294/Domain: signal sequence #status predicted <AMT>
F;53-294/Domain: RNA N-glycosidase homology <RNG>

Gaps 0; Length 316; Indels 100.0%; Score 1623; DB 2; 100.0%; Pred. No. 1.9e-120; tive 0; Mismatches 0; Local Similarity 100. 1es 316; Conservative Query Match Best Local S Matches 316

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9 1 MKGNMKVYWIKIAVATWFCCTTIVLGSTARIFSLPTNDEETSKTLGLDTVSFSTKGATY ⋧

9 MKGNMKVYWIKIAVATWFCCTTIVLGSTARIFSLPTNDEEETSKTLGLDTVSFSTKGATY g

120 ITYVNFLNELRVKLKPEGNSHGIPLLRKKCDDPGKCFVLVALSNDNGQLAEIAIDVTSVY 61 ò

120 61 ITYVNFLNELRVKLKPEGNSHGIPLLRKKCDDPGKCFVLVALSNDNGQLAEIAIDVTSVY g

180 **VVGYQVRNRSYFFKDAPDAAYEGLFKNTIKTRLHFGGSYPSLEGEKAYRETTDLGIEPLR** 121 Š

180 VGYQVRNRSYFFKDAPDAAYEGLFKNTIKTRLHFGGSYPSLEGEKAYRETTDLGIEPLR 121

g

240 181 IGIKKLDENAIDNYKPTEIASSLLVVIQMVSEAARFTFIENQIRNNFQQRIRPANNTISL 240 IGIKKLDENAIDNYKPTEIASSLLVVIQMVSEAARFTFIENQIRNNFQQRIRPANNTISL 181 ઠે d

ENKWGKLSFQIRTSGANGMFSEAVELERANGKKYYVTAVDQVKPKIALLKFVDKDPKTSL 241 8

Φ

Pag

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Proteins 10, 251-259, 1991

A,Title: Structure of ricin A-chain at 2.5 angstroms.

A,Reference number: A48239; MUD:91352004; PMID:1881881

A,Reference number: A48239; MUD:91352004; PMID:1881881

A,Reference number: A48239; MUD:91352004; PMID:1881881

C,Comment: The functional molecule is a disulfide-linked dimer of A and B chains, which c,Comment: The A chain inhibits protein synthesis; it inactivates the 60S ribosomal subunct the cell of the A chain; B chains are also responsible for cell agglutination (lecting the cell of the A chain; B chains are also responsible for cell agglutination (lecting comment: This protein is cytocoxic and very poisonous to animals.

C,Superfamily: ricin; rRNA N-glycosidase homology

C,Keywords: duplication; glycoprotein; glycosidase; hydrolase; lectin; RNA binding; seed F; 136-302/Product: ricin D chain A #status experimental <ACH>
F; 155-576/Product: ricin D chain A #status experimental <ACH>
F; 155-576/Product: ricin D chain B #status experimental <ACH>
F; 155-576/Product: ricin D chain B #status experimental <ACH>
F; 155-576/Product: ricin D chain B #status experimental <ACH>
F; 155-576/Product: ricin D chain B #status experimental <ACH>
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F; 155-576/Product: ricin D chain B #status experimental <F; 155-576/Product: ricin D chain B #status experimental <F; 155-674-7318, 334-353, 377-394, 465-478, 504-521/Disulfide bonds: #status experimental <F; 215/Active site: Arg #status predicted <F; 215/Active Site: Arg #status Prodicted <F; 215/Active Site: Arg #status Prodicted <F; 215/
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GNMKVYWIKIAVATWFCCTTIVLGSTARIFSLPTNDEEETSKTLGLDTVSFSTKGATYIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YVNFLNELRVKLKPEGN-SHGI PLLRKKCDDP-GKCFVLVALSNDNGQLAEIAIDVTSVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VVGYQVRNRSYFFKDAPD----AAYEGLFKNTIKTR--LHFGGSYPSLEGEKA-YRETT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Agglutinin precursor - castor bean
N; Contains: rRNA N-glycosidase (EC 3.2.2.22)
C; Species: Ricinus communis (castor bean)
C; Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 09-J
C; Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 09-J
C; Accession: A24261; A24210
R; Roberts, L.M.; Lamb, I.F.; Pappin, D.J.C.; Lord, J.M.
J. Biol. Chem. 260, 15682-15686, 1985
A; Title: The primary sequence of Ricinus communis agglutinin. Compar A; Reference number: A24261; MUID:86059449; PMID:2999130
A; Reference number: A24261; MUID:86059449; PMID:2999130
A; References: UNIPROT:P06750; GB:M12089; NID:gl69700; PIDN:AAA A; Residues: 1-564 <ROB>
A; Cross-references: UNIPROT:P06750; GB:M12089; NID:gl69700; PIDN:AAA A; Reference number: A24210
A; Reference number: A24210
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A; Rocession: A24210
A; Rocession: A24210
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Pred. No. 1.5e-22;
54; Mismatches 132; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 23.8%;
Best Local Similarity 35.0%;
Matches 115; Conservative 5
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                                                                                                                                                                                     FQIRTSGANGMFSEAVELERANGKKYYVTAVDQVKPKIALLKFVDKDPKTSL
                                             AAELIIQNYESLVGFD 316
|||||||||||||||||||||
AAELIIQNYESLVGFD 316
      ENKWGKLS
      241
                                               301
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aggluti

communis

Ricinus

PID:9169701

NID:g169700; PIDN:AAA33869.1;

ricin

Comparison with

09-Jul-2004

290 291

120

55

Gaps

28;

Length 576;

GenCore version 5.1.6 Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

July 27, 2005, 17:15:15 ; Search time 174 Seconds (without alignments) 929.983 Million cell updates/sec Run on:

Title: Perfect score: Sequence:

US-10-074-596-1 1623 1 MKGNMKVYWIKIAVATWFCC.....KTSLAABLIIQNYESLVGFD 316

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

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1612378 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 08
Maximum Match 1008
Listing first 45 summaries

Database

UniProt\_03:\*
1: uniprot\_sprot:\*
2: uniprot\_trembl:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

Description	P33186 qelonium mu		Q8gzn9 euphorbia s		Q94bws cinnamomum	Q9fv22 cinnamomum				Q8vyu0 jatropha cu	_	Q8s452 jatropha cu		Q41174 ricinus com	P33183 sambucus ni	Q945s2 sambucus ni	Q6t5d6 jatropha cu		P29339 momordica b	P24817 momordica c	Q684j5 momordica c		P34967 phytolacca			17	phytol	54	4	덛	Q6h267 viscum albu
ID	RIPG GELMU	Q9S9 <u>E</u> 4	OBGZN9	Q94BW3	Q94BW5	Q9FV22	Q94BW4	Q8GZP0	RICI_RICCO	QBVYU0	AGGL_RICCO	Q8S4 <u>5</u> 2	Q8GT32	041174	NIGB_SAMNI	Q945 <u>S</u> 2	Q6T5D6	004367	RIP2_MOMBA	RIP3_MOMCH	Q684 <u>J</u> 5	RIP1_TRIAN	RIP2_PHYDI	Q9AVR2	Q6PWU4	ABRB_ABRPR	RIP1 PHYAM	RIPA_PHYAM	RIP2_BRYDI	Q8H1W1	Q6H267
DB	 	7	~	7	~	~	7	~	Н	~	<b>~</b>	~	~	~	-	7	~	~	٦	-	7	-		7	7	Н	7	ч	٦	~	7
Length	316	258	299	. 580	581	549	580	297	276	293	564	293	563	541	563	563	309	563	286	286	264	294	265	564	313	527	313	294	282	294	567
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Score	1623	1242.5	415	401.5	400.5	392.5	392.5	391	386	367	366	364	9	352.5	352	352		348.5	347	347	346		341.5	339	338	ß	334.5	S	333	S	330.5
Result No.	-	8	က	4	S	Q	7	ω	6	10	11	12	13	14	15	16	17	18					23					28	29		31

EMBL; L12243; AAA16312.1; -. PIR; JT0753; JT0753.

8 8 8 8

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32	33	34	35	36	37	38	39	40	41	42	43	44	45

# ALIGNMENTS

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	01-0CT-1993	(Rel. 27. Created)	ed)		
D		32,	sequence update)	ipdate)	
DŢ	05-JUL-2004	44		n update)	
DE	ĕ		in qelonir	1 precursor (E	protein gelonin precursor (EC 3.2.2.22) (rRNA N-
DE	qlycosidase).	)	)	•	
Ü	Name=GEL:				
S	Gelonium mul	Gelonium multiflorum (Euroborbiaceae himalava)	rbiaceae }	. (evelemin	
20	Eukarvota: V	iridiplantae: S	treptophyt	a: Embryophyt	a: Tracheophyta:
2 5	SpermatOphyta	a. Magnoliophyt	**************************************	wiledone: core	Construction Market as and contract of the con
35	Piroside T. I	a; magnorropny. Malnichiales: E	a; eddico	yredons; core	operimarchiyra; magicilopinyra; addicoryredoma; core educiors; operimarchiyra; magicilopinyra; educioryredoma; core educiors; opinoaida I: Malnichialea: Emphorhiaceae
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2 2	[1]	1010			
ž 6	CEOTHENICE SHOW N N	2 2			
2 2	MENT THE SAME	F. N. A.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
2 6	Melolines 9406	5/81; FuoMed=/5	TO/ZI; DOI	1=10.1010/03/6	MEDLINE=94.05.01; FUDMEG=1910.41; DOI=10.1016/03/8-1119(93/9009/-M;
<b>5</b> 6	"Glan F.A.,	Gailtson D.A.,	Berrer M.		
K.	"Cloning and	expression of	a gene enc	coding gelonin	i, a ribosome-
KI	inactivating	protein from C	elonium mu	iltiflorum.";	
Z :	Gene 134:223	Gene 134:223-227(1993).			
ZZ.	[2]				
RP	SEQUENCE OF 47-93	47-93.			
RC	TISSUE=Seed;				
ΚX	MEDLINE=89326691;	6691; PubMed=2753596;	53596;		
æ	Montecucchi P.C.,	P.C., Lazzarini A.M.,		Barbieri L., Sti	Stirpe F.; Soria M.,
Æ	Lappi D.;				
RT	"N-terminal	"N-terminal sequence of some ribosome-inactivating proteins.";	e ribosome	e-inactivating	proteins.";
RL	Int. J. Pept	Int. J. Pept. Protein Res. 33:263-267(1989).	33:263-267	7 (1989).	
RN	[3]				
RP.	X-RAY CRYSTAL	X-RAY CRYSTALLOGRAPHY (1.8 ANGSTROMS).	ANGSTROMS)	•	
χX	MEDLINE=9533	MEDLINE=95333189; PubMed=7608981;	08981;		
æ	Hosur M.V., 1	Hosur M.V., Nair B., Satyamurthy P., Misquith S.,	urthy P.,		Surolia A.,
æ	Kannan K.K.;				
RT	"X-ray struct	ture of gelonin	at 1.8-A	resolution.";	
RL	J. Mol. Biol	J. Mol. Biol. 250:368-380(1995).	995).		
ပ္ပ	-   - CATALYTI	C ACTIVITY: End	ohydrolysi	s of the N-ql	the N-qlycosidic bond at one
ပ္ပ	specific	adenosine on t	on the 28S rRNA	IA.	
ບ	-!- SÜBUNIT:	Homodimer.			
2		TY: Belonds to	the riboso	nme-inactivati	SIMILARITY: Belonds to the ribosome-inactivating protein family.
) [		Type 1 RIP Rubfamily.			
20					
ູບ	This SWISS-P	ROT entry is co	pyright. I	t is produced	through a collaboration
ູ	between the	Swige Institut	e of Bioin	formatics an	between the Swigs Institute of Ricinformatics and the EMRI, cutstation
ູບ	the European	Bioinformatics	Institute	There are	no restrictions on its
ပ္ပ	use by non-	-profit instit	utions as	long as its	content is in no way
ပ္ပ	modified and	this statement	is not re	moved. Usage	modified and this statement is not removed. Usage by and for commercial
i C	entities rem	uires a license	agreement	(See http://	www.isb-sib.ch/announce/
ပ္ပ	or send an en	mail to license	@isb-sib.c	h).	or send an email to license@isb-sib.ch)
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O959E4;
O1-MAY-2000 (TrEMBLrel. 13, Created)
O1-MAY-2000 (TrEMBLrel. 13, Last sequence update)
O1-OCT-2003 (TrEMBLrel. 25, Last annotation update)
rRNA -glycosidase (EC 3.2.2.2) (rRNA N-glycosidase).
Gelonium multiflorum (Euphorbiaceae himalaya).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids I; Malpighiales; Euphorbiaceae; Crotonoideae; Gelonieae; Gelonium.
NCBI TaxID=3979;
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Rosenblum M.G., Kohr W.A., Beattie K.L., Beattie W.G., Marks W.,
Rosenblum M.G., Kohr W.A., Beattie K.L., Beattie W.G., Marks W.,
Toman P.D., Cheung L.;
"Amino acid sequence analysis, gene construction, cloning, and
expression of gelonin, a toxin derived from Gelonium multiflorum.";
J. Interferon Cytokine Res. 15:547-555(1995).
-!- CATALYTIC ACTIVITY: Endohydrolysis of the N-glycosidic bond at o
specific adenosine on the 28S rRNA.
-!- SIMILARITY: Belongs to the ribosome-inactivating protein family.
HSSP; P09989; 1MRJ.
                                                                                                                                                                                                                                                              gelonin
                                                                                                                                                defense
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                                                                                                                                              Plant
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1252F3E710901B85 CRC64;
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                   InterPro; IPR001574; RIP.
Pfam; PF00161; RIP; 1.
PRINTS; PR00396; SHIGARICIN.
PROSITE; PS00275; SHIGA_RICIN; FALSE_NEG.
Direct protein sequencing; Glycoprotein; Hycerotein synthesis inhibitor; Signal; Toxin.
SIGNAL 1 26 Potential.
PROPEP 298 316 Removed in mature of the state o
                                                                                                                                          Glycoprotein; Hyor; Signal; Toxin.
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1MRJ.
.001574; RIP.
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Best Local Similarity
Matches 316; Conserv
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PRINTS; PR00396; SHIGARICIN.
PROSITE; PS00275; SHIGA_RICIN; 1.
Glycosidase; Hydrolase; Plant defense; Protein synthesis inhibitor; Signal; Toxin.
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GO; GO:0016787; F:hydrolase activity; IEA.
GO; GO:0030598; F:rRNA N-glycosylase activity; IEA.
GO; GO:0006952; P:defense response; IEA.
GO; GO:0017148; P:negative regulation of protein biosynthesis;
GO; GO:0009405; P:pathogenesis; IEA.
InterPro; IPR001574; RIP.
Pfam; PF00161; RIP; 1.
PRINTS; PR00396; SHIGARICIN.
Hydrolase; Plant defense; Protein synthesis inhibitor; Toxin.
SEQUENCE 258 AA; 28826 MW; 13D68E673F4D6B06 CRC64;
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GO; GO:0005975; P:carbohydrate metabolism; IEA.
GO; GO:0006952; P:defense response; IEA.
GO; GO:0017148; P:negative regulation of protein biosynthesis; GO; GO:0009405; P:pathogenesis; IEA.
InterPro; IPR001574; RIP.
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Girbes T., Arias F.J., Benvenuto E.;
Submitted (DEC-2001) to the EMBL/GenBank/DDBJ databases.
-!- CATALYTIC ACTIVITY: Endohydrolysis of the N-glycosidic bo specific adenosine on the 28S rRNA.
-!- SIMILARITY: Belongs to the ribosome-inactivating protein EMBL; AF457875; AAO15531.1; -.
HSSP; Q9AVR2; 1HWN.
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01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Ribosome inactivating protein Euserratin 2 precursor 3.2.2.22).
Name=Eus2;
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Pred. No. 1e-88;
1; Mismatches
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Local Similarity 95.8%;
les 248; Conservative 1
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NCBI_TaxID=196589;
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